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10/761,519

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Jose Rojas Ubilla

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7590
Brandon N. Sklar
Kaye Scholer LLP
425 Park Avenue
New York, NY 10022-3598

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EXAMINER

SPAHN, GAY

ART UNIT

PAPER NUMBER

3635

MAIL DATE

DELIVERY MODE

06/04/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/761,519

Applicant(s)

UBILLA, JOSE ROJAS

Examiner

Gay Ann Spahn

Art Unit

3635

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 February 2007 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☒ Other: See Continuation Sheet.

Continuation of Attachment(s) 6). Other: ATTACHMENT 1 (enlargement and marked-up copy of right hand side of Fig. 12 of U.S. Patent Application Publication No. 2002/0038533 to POTTER ET AL.).

DETAILED ACTION

Response to Amendment

The amendment filed 21 February 2007 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:

(1) Fig. 1, dashed lines 6 and 7 are considered to constitute new matter as not supported by the original disclosure;

(2) Fig. 2, the placement of the welds 10 and external edges 5 are considered to constitute new matter as not supported by the original disclosure; and

(3) the additions to the paragraph beginning at page 4, line 12 of the specification are considered to constitute new matter as not supported by the original disclosure.

Applicant is required to cancel the new matter in the reply to this Office Action.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

The drawings were received on 21 February 2007. These drawings are not acceptable to the examiner and objections to the drawings are set forth below.

The drawings filed on 21 February 2007 must have the informalities indicated on the attached "Notice of Draftsperson's Patent Drawing Review" (i.e., form PTO-948) corrected. In order to avoid abandonment of this application, correction is required in reply to the Office action. The correction will not be held in abeyance.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the

(1) "angled corner section between the first and third section" as specifically recited in claims 22, 32, 43, and 45 (since the original disclosure shows reference numeral "2" as a rounded corner),

(2) "first inclined line is angled at about 45 degrees with respect to the first section" as specifically recited in claims 23, 33 and 44,

(3) "intermittent welds along the second end of at least one of the elongated members" as specifically recited in claim 26,

(4) "at least three elongated members having opposing ends, the elongated members being arranged such that the opposing ends of the elongated members do not coincide at a common axial position of the hollow structure" as specifically recited in claim 27,

(5) "at least one of the elongated members is fabricated from at least one of metal, plastic, glass, or composite materials" as specifically recited in claims 28 and 40 (see the Manual of Patent Examining Procedure (MPEP) § 608.02(IX), entitled "Drawing Symbols"),

(6) "at least one of the elongated members is fabricated from at least one of fiber cement or fiber-glass reinforced plastic" as specifically recited in claim 29,

(7) "joining means is at least one of a fusion weld, a rivet, a screw, a bolt, or an adhesive" as specifically recited in claims 30 and 41,

(8) "joining means extends along an entire length of at least one elongated member" as specifically recited in claim 31

(9) "two elongated members includes at least four elongated members comprising: a first elongated member and a second elongated member joined end-to-end to form a first joint; and a third elongated member and a fourth elongated member joined end-to-end to form a second joint; wherein the first and second elongated members and the third and fourth elongated members are configured to form the hollow structure and the first end joint and the second end joint do not coincide" as specifically recited in claim 39,

(10) "joining means extends along the entire length of the elongated members" as specifically recited in claim 42,

must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure

is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to because:

(1) Figs. 1-3, the reference numerals should not be within parentheses pursuant to 37 C.F.R. § 1.84(p)(1);

(2) Figs. 1-3, the view numbers must be larger than the numbers used for reference numerals or characters pursuant to 37 C.F.R. § 1.84(u)(2); and

(3) Figs. 1-3, all arrows at the end of lead lines that do not comply with 37 C.F.R. § 1.84(r)(1-3) must be deleted.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure

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is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claims 28, 30, and 36 are objected to because of the following informalities:

(1) claims 28, 30, and 36 fails to end in a period as per the Manual of Patent Examining Procedure (herein after "MPEP") § 608.01(m), entitled "Form of Claims", fifth sentence, which states that "[e]ach claim begins with a capital letter and ends with a period.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 22-45 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 22, 32, 43, and 45, lines 11-13, the recitation of "an angled corner between the first section and the third section, the angled corner having an interior corner side substantially facing the opening and an exterior corner side defining a first inclined line tangent to the exterior corner side" constitutes new matter as not supported by the original disclosure since the original disclosure only disclosed a rounded bend (2), not an angled corner, and an angled corner is not the same thing as or equivalent to a rounded bend.

Further, the recitation of "the exterior corner side defining a first inclined line tangent to the exterior corner side" constitutes new matter as not supported by the original disclosure since the original disclosure did not disclose any purported imaginary line tangent to the rounder corner (2).

Claims 22, 32, and 43, lines 16-17, the recitation of the first surface section "defining a second inclined line" constitutes new matter as not being supported by the original disclosure.

Claims 22 and 32, lines 19-20, the recitation that "the distance between the first inclined line and the first end is less than the distance between the second inclined line and the second end" constitutes new matter as not supported by the original disclosure.

Claim 23, 33, and 44, lines 2-3, the recitation that "the first inclined line is angled at about 45 degrees with respect to the first section; and the second inclined line is substantially parallel to the first inclined line/surface" constitutes new matter as not supported by the original disclosure.

Claim 25, lines 1-2, the recitation that "the length of the second section is less than the length of the third section" constitutes new matter as not being supported by the original disclosure since patent drawings are not to scale and therefore, cannot be relied upon to supports lengths, proportions, etc.

Claim 26, lines -12, the recitation that "the joining means comprises intermittent welds along the second end of at least one of the elongated members", and **claim 38**, lines 1-2, the recitation that "the joining means comprises at least one intermittent weld applied along the second end of at least one of the elongated members" both constitute new matter as not supported by the original disclosure (i.e., although page 4, line 5, discusses intermittent welds, there is no support for them being along the second end of at least one of the elongated members).

Claim 27, lines 1-3, the recitation of "at least three elongated members having opposing ends, the elongated members being arranged such that the opposing ends of the elongated members do not coincide at a common axial position of the hollow structure" constitutes new matter as not being supported by the original disclosure.

Claim 31, lines 1-2, the recitation that "the joining means extends along an entire length of at least one elongated member", and **claim 42**, lines 1-2, the recitation that

"the joining means extends along the entire length of the elongated members"
constitutes new matter as not being supported by the original disclosure.

Claim 37, lines 1-2, the recitation that "the two elongated members have unequal lengths" constitutes new matter as not supported by the original disclosure.

Claim 39, lines 1-9, the recitation that "the two elongated members includes at least four elongated members comprising: a first elongated member and a second elongated member joined end-to-end to form a first joint; and a third elongated member and a fourth elongated member joined end-to-end to form a second joint; wherein the first and second elongated members and the third and fourth elongated members are configured to form the hollow structure and the first end joint and the second end joint do not coincide.

Claim 45, lines 17-18, the recitation that "the distance between the first inclined line and the first end is less than the distance between the interior indentation surface and the second end" constitutes new matter as not supported by the original disclosure.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 22-45 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 22, 32, and 45, line 2, the recitation of "two elongated members configured to form a hollow structure" is vague, indefinite, and confusing since it is not

clear if the hollow structure is the same thing as the beam member (i.e., is Applicant saying that the elongated members themselves are hollow structures or that when the two elongated members are fit together as in Fig. 2, they form a hollow structure?).

Claims 22 and 45, lines 2-3, the recitation of "each elongated member" is vague, indefinite, and confusing as lacking antecedent basis and the examiner suggests amending to --each of said at least two elongated members--.

Claims 22, 32, 43, and 45, line 4, the recitation of "a first end" is vague, indefinite, and confusing because it is not clear if the first end is only the very tip or the entire portion from the tip to the first corner section.

Claims 22, 32, 43, and 45, line 5, the recitation of "a second end spatially separated from the first end and defining an opening" is vague, indefinite, and confusing because it is not clear if the second end is only the very tip or the entire portion from the tip to the second corner section and it is also not clear if only the second end defines the opening or if the first and second ends together define the opening.

Claims 22, 32, 43, and 45, line 11, the recitation of "an angled corner" is vague, indefinite, and confusing because it is not clear if an angled corner is the same thing as a rounded corner or is different than a rounded corner.

Claims 22 and 45, lines 12-13, the recitation of "an exterior corner side defining a first inclined line tangent to the exterior corner side", and **claims 32 and 43**, lines 12-13, the recitation of "an exterior corner side defining a first inclined line" are vague, indefinite, and confusing since it is not clear how an exterior corner side can define a first inclined line.

Claims 22, 32, and 43, lines 15-17, the recitation of "a first surface section at least partially facing the second section and defining a second inclined line" is vague, indefinite, and confusing because it is not clear how a first surface section can define a second inclined line especially since it appears from the drawing that the second inclined line is neither tangent to the first surface section nor encompasses the first surface section. Rather, it appears from Applicant's Replacement Sheet filed 21 February 2007 that Applicant simply picked a random point on the first surface section and drew a line therethrough that would be parallel to the first inclined line.

Claims 22, 32, and 45, lines 18, 18, and 16, respectively, the recitation of "the at least two identical elongated members" is vague, indefinite, and confusing as lacking antecedent basis since it was only recited that the cross sections were identical, not the entire elongated members.

Claims 22, 32, and 45, lines 19-20, 19-20, and 17-18, respectively, the recitation of "wherein the distance between the first inclined line and the first end is less than the distance between the second inclined line and the second end" is vague, indefinite, and confusing because it is not clear what constitutes the first and second end (i.e., is Applicant referring to the very tip or to the entire structure between the tip and the corner?).

Claim 23-31, line 1, the recitation of "of claim 1" is vague, indefinite, and confusing since claim 1 has been canceled. Claims 23-31 have been examined on their merits as if they were dependent upon claim 22.

Claim 23, lines 2-3, the recitation that “the first inclined line is angled at about 45 degrees with respect to the first section; and the second inclined line is substantially parallel to the first inclined line” is vague, indefinite, and confusing since it is not at all clear how these lines are arrived at.

Claim 24, line 1, the recitation of “the cross section further comprising” is vague, indefinite, and confusing since it is not clear whether lines 2-3 of claim 1 is reciting that each of the elongated members comprises the first and second end, etc. or that the cross section comprises the first and second end, etc. (i.e., the examiner suggests amending “cross section comprising:” to --cross section, the cross section comprising:--.

Claim 24, lines 1-4, the recitation that “the cross section further comprises at least one of: a rounded corner between the second section and the third section; a first comer section between the first end and the first section; or a second comer section between the second end and the second section” is vague, indefinite, and confusing for being in improper Markush group format and should be changed to --the cross section being selected from a group consisting of: a rounded corner between the second section and the third section; a first comer section between the first end and the first section; and a second comer section between the second end and the second section--.

Claim 25, lines 1-2, the recitation of “the length of the second section is less than the length of the third section” is vague, indefinite, and confusing since it is not clear what dimension the recitation is referring to (i.e., see Attachment 1 where the length dimension of the elongated members FEM and SEM is into and out of the plane of the paper).

Claim 26, lines 1-2, the recitation that “the joining means comprises intermittent welds along the second end of at least one of the elongated members” is vague, indefinite, and confusing since it is not clear in which direction that welds are intermittent.

Claim 27, lines 1-3, the recitation of “at least three elongated members having opposing ends, the elongated members being arranged such that the opposing ends of the elongated members do not coincide at a common axial position of the hollow structure” is vague, indefinite, and confusing as not being understood and for lack of antecedent basis because it is not clear whether “opposing ends” refers back to the first and second ends recited in claim 1 or not.

Claims 28 and 40, lines 1-2, the recitation that “at least one of the elongated members is fabricated from at least one of metal, plastic, glass, or composite materials” is vague, indefinite, and confusing for being in improper Markush group format and should be changed to --at least one of the elongated members is fabricated from a group consisting of metal, plastic, glass, and composite materials--.

Claim 29, lines 1-2, the recitation that “at least one of the elongated members is fabricated from at least one of fiber cement or fiber-glass reinforced plastic” is vague, indefinite, and confusing for being in improper Markush group format and should be changed to --at least one of the elongated members is fabricated from a group consisting of fiber cement reinforced plastic and fiber-glass reinforced plastic--.

Claims 30 and 41, lines 1-2, the recitation that “the joining means is at least one of a fusion weld, a rivet, a screw, a bolt, or an adhesive” is vague, indefinite, and

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confusing for being in improper Markush group format and should be changed to -- the joining means is selected from a group consisting of a fusion weld, a rivet, a screw, a bolt, and an adhesive--.

Claim 33, lines 2-3, the recitation that "the first inclined line is angled at about 45 degrees with respect to the first section; and the second inclined line is substantially parallel to the first inclined surface" is vague, indefinite, and confusing since it is not at all clear how these lines are arrived at. Also, the recitation of "the first inclined surface" is vague, indefinite, and confusing as lacking antecedent basis and the word "surface" should be amended to --line--.

Claim 39, lines 1-9, the recitation that "the two elongated members includes at least four elongated members comprising: a first elongated member and a second elongated member joined end-to-end to form a first joint; and a third elongated member and a fourth elongated member joined end-to-end to form a second joint; wherein the first and second elongated members and the third and fourth elongated members are configured to form the hollow structure and the first end joint and the second end joint do not coincide" is vague, indefinite, and confusing as not being understood.

Claim 44, lines 2-3, the recitation that "the first inclined line is angled at about 45 degrees with respect to the first section and the second inclined line is substantially parallel to the first inclined line" is vague, indefinite, and confusing since it is not at all clear how these lines are arrived at.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 22-25, 28, 31-35, 40, and 42-45 are rejected under 35 U.S.C. 102(b) as being anticipated by POTTER ET AL. (U.S. Patent Application Publication No. 2002/0038533).

As to claim 22 (and as best understood despite the 35 U.C.S. § 112, first and second paragraph, lack of written description and indefiniteness, respectively, discussed above), POTTER ET AL. disclose (see ATTACHMENT 1) a beam member (BM) comprising:

at least two elongated members (FEM, SEM) configured to form a hollow structure (BM), each of said elongated members (FEM, SEM) having an identical "C" shaped cross section comprising:

a first end (FE);

a second end (SE) spatially separated from the first end (FE) and defining an opening (O);

a first section (FS) adjacent the first end (FE);

a second section (SS) adjacent the second end (SE) and configured substantially opposite the first section (FS);

a third section (TS) extending between the first section (FS) and the second section (SS) and positioned substantially opposite the opening (O);

an angled corner (AC) between the first section (FS) and the third section (TS), the angled corner (AC) having an interior corner side (ICS) substantially facing the opening (O) and an exterior corner side (ECS) defining a first inclined line (FIL) tangent to the exterior corner side (ECS); and

at least one indentation (I) on the third section (TS) directed toward the opening (O) and having an interior indentation surface (IIS), the interior indentation surface (ISS) having a first surface section (FSS) at least partially facing the second section (SS) and defining a second inclined line (SIL); and

a joining means (slight inward lip JM of second end SE) for joining the at least two identical elongated members (FEM, SEM) to each other;

wherein the distance between the first inclined line (FIL) and the first end (FE) is less than the distance between the second inclined line (SIL) and the second end (SE).

As to claim 23 (and as best understood despite the 35 U.C.S. § 112, first and second paragraph, lack of written description and indefiniteness, respectively, discussed above), POTTER ET AL. disclose the beam member (BM) of claim 22 as discussed above, and POTTER ET AL. also disclose that the first inclined line (FIL) is angled at about 45 degrees with respect to the first section (FS), and the second inclined line (SIL) is substantially parallel to the first inclined line (FIL).

As to claim 24 (and as best understood despite the 35 U.C.S. § 112, first and second paragraph, lack of written description and indefiniteness, respectively,

discussed above), POTTER ET AL. disclose the beam member (BM) of claim 22 as discussed above, and POTTER ET AL. also disclose that the cross section further comprises at least one of: a rounded corner (RC) between the second section (SS) and the third section (TS); a first corner section (FCS) between the first end (FE) and the first section (FS); or a second corner section (SCS) between the second end (SE) and the second section (SS).

As to claim 25 (and as best understood despite the 35 U.C.S. § 112, first and second paragraph, lack of written description and indefiniteness, respectively, discussed above), POTTER ET AL. disclose the beam member (BM) of claim 22 as discussed above, and POTTER ET AL. also disclose that the length of the second section (SS) is less than the length of the third section (TS).

As to claim 28 (and as best understood despite the 35 U.C.S. § 112, first and second paragraph, lack of written description and indefiniteness, respectively, discussed above), POTTER ET AL. disclose the beam member (BM) of claim 22 as discussed above, and POTTER ET AL. also disclose that at least one of the elongated members (FEM or SEM) is fabricated from at least one of metal (see paragraph no. [0012]), plastic, glass, or composite materials.

As to claim 31 (and as best understood despite the 35 U.C.S. § 112, first and second paragraph, lack of written description and indefiniteness, respectively, discussed above), POTTER ET AL. disclose the beam member (BM) of claim 22 as discussed above, and POTTER ET AL. also disclose that the joining means (lip JM) extends along an entire length of at least one elongated member (FEM or SEM).

As to claim 32 (and as best understood despite the 35 U.C.S. § 112, first and second paragraph, lack of written description and indefiniteness, respectively, discussed above), POTTER ET AL. disclose a structural element (BM) comprising:

two elongated members (FEM, SEM) configured to form a hollow structure (BM), the elongated members (FEM, SEM) having identical "C" shaped cross sections, each cross section comprising:

a first end (FE);

a second end (SE) spatially separated from the first end (FE) and defining an opening (O);

a first section (FS) adjacent the first end (FE);

a second section (SS) adjacent the second end (SE) and configured substantially opposite the first section (FS);

a third section (TS) extending between the first section (FS) and the second section (SS) and positioned substantially opposite the opening (O);

an angled corner (AC) between the first section (FS) and the third section (TS), the angled corner (AC) having an interior corner side (ICS) substantially facing the opening (O) and an exterior corner side (ECS) defining a first inclined line (FIL) tangent to the exterior corner side (ECS); and

at least one indentation (I) on the third section (TS) directed toward the opening (O) and having an interior indentation surface (IIS), the interior indentation surface (IIS) having a first surface section (FSS) at least partially facing the second section (SS) and defining a second inclined line (SIL); and

a joining means (slight inward lip JM of second end SE) for joining the at least two identical elongated members (FEM, SEM) to each other;

wherein the distance between the first inclined line (FIL) and the first end (FE) is less than the distance between the second inclined line (SIL) and the second end (SE).

As to claim 33 (and as best understood despite the 35 U.C.S. § 112, first and second paragraph, lack of written description and indefiniteness, respectively, discussed above), POTTER ET AL. disclose the structural element (BM) of claim 32 as discussed above, and POTTER ET AL. also disclose that the first inclined line (FIL) is angled at about 45 degrees with respect to the first section (FS); and the second inclined line (SIL) is substantially parallel to the first inclined surface (FIL).

As to claim 34 (and as best understood despite the 35 U.C.S. § 112, first and second paragraph, lack of written description and indefiniteness, respectively, discussed above), POTTER ET AL. disclose the structural element (BM) of claim 32 as discussed above, and POTTER ET AL. also disclose that the cross section further comprises a rounded corner (RC) between the second section (SS) and the third section (TS).

As to claim 35 (and as best understood despite the 35 U.C.S. § 112, first and second paragraph, lack of written description and indefiniteness, respectively, discussed above), POTTER ET AL. disclose the structural element (BM) of claim 32 as discussed above, and POTTER ET AL. also disclose that the cross section further comprises: a first corner section (FCS) between the first end (FE) and the first section

(FS); and a second corner section (SCS) between the second end (SE) and the second section (SS).

As to claim 40 (and as best understood despite the 35 U.C.S. § 112, first and second paragraph, lack of written description and indefiniteness, respectively, discussed above), POTTER ET AL. disclose the structural element (BM) of claim 32 as discussed above, and POTTER ET AL. also disclose that at least one of the elongated members (FEM or SEM) is composed of at least one of metal (see paragraph no. [0012]), plastic, glass, or composite material.

As to claim 42 (and as best understood despite the 35 U.C.S. § 112, first and second paragraph, lack of written description and indefiniteness, respectively, discussed above), POTTER ET AL. disclose the structural element (BM) of claim 32 as discussed above, and POTTER ET AL. also disclose that the joining means (lip JM) extends along the entire length of the elongated members (FEM, SEM).

As to claim 43 (and as best understood despite the 35 U.C.S. § 112, first and second paragraph, lack of written description and indefiniteness, respectively, discussed above), POTTER ET AL. disclose a method for manufacturing a structural element (BM) comprising:

providing two elongated members (FEM, SEM) having identical "C" shaped cross sections, each cross section comprising:

a first end (FE);

a second end (SE) spatially separated from the first end (FE) and defining an opening (O);

a first section (FS) adjacent the first end (FE);

a second section (SS) adjacent the second end (SE) and configured substantially opposite the first section (FS);

a third section (TS) extending between the first section (FS) and the second section (SS) and positioned substantially opposite the opening (O);

an angled corner (AC) between the first section (FS) and the third section (TS), the angled corner (AC) having an interior corner side (ICS) substantially facing the opening (O) and an exterior corner side (ECS) defining a first inclined line (FIL) tangent to the exterior corner side (ECS); and

at least one indentation (I) on the third section (TS) directed toward the opening (O) and having an interior indentation surface (IIS), the interior indentation surface (IIS) having a first surface section (FSS) at least partially facing the second section (SS) and defining a second inclined line (SIL); and

joining the two elongated members (FEM, SEM) to form a hollow transversal structure (BM).

As to claim 44 (and as best understood despite the 35 U.C.S. § 112, first and second paragraph, lack of written description and indefiniteness, respectively, discussed above), POTTER ET AL. disclose the method of claim 43 as discussed above, and POTTER ET AL. also disclose the step of providing the two elongated members (FEM, SEM) includes the first inclined line (FIL) being angled at about 45 degrees with respect to the first section (FS) and the second inclined line (SIL) being substantially parallel to the first inclined line (FIL).

As to claim 45 (and as best understood despite the 35 U.C.S. § 112, first and second paragraph, lack of written description and indefiniteness, respectively, discussed above), POTTER ET AL. disclose a beam member (BM) comprising:

at least two elongated members (FEM, SEM) configured to form a hollow structure (HS), each of said elongated members (FEM, SEM) having an identical "C" shaped cross section comprising:

a first end (FE);

a second end (SE) spatially separated from the first end (FE) and defining an opening (O);

a first section (FS) adjacent the first end (FE);

a second section (SS) adjacent the second end (SE) and configured substantially opposite the first section (FS);

a third section (TS) extending between the first section (FS) and the second section (SS) and positioned substantially opposite the opening (O);

an angled corner (AC) between the first section (FS) and the third section (TS), the angled corner (AC) having an interior corner side (ICS) substantially facing the opening (O) and an exterior corner side (ECS) defining a first inclined line (FIL) tangent to the exterior corner side (ECS); and

at least one indentation (I) on the third section (TS) directed toward the opening (O) and having an interior indentation surface (IIS); and

a joining means (slight inward lip JM of second end SE) for joining the at least two identical elongated members (FEM, SEM) to each other;

wherein the distance between the first inclined line (FIL) and the first end (FE) is less than the distance between the second inclined line (SIL) and the second end (SE).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 26 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over POTTER ET AL. (U.S. Patent Application Publication No. 2002/0038533) in view of STOL ET AL. (U.S. Patent No. 5,435,110).

As to claim 26 (and as best understood despite the 35 U.C.S. § 112, first and second paragraph, lack of written description and indefiniteness, respectively, discussed above), POTTER ET AL. disclose the beam member of claim 22 as discussed above.

POTTER ET AL. fail to explicitly disclose that the joining means comprises intermittent welds along the second end of at least one of the elongated members.

STOL ET AL. discloses the use of intermittent welds (20 in Fig. 2) in joining hollow framework.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the beam member of POTTER ET AL. by making the joining means be intermittent welds along the second end of at least one of the

elongated members as taught by STOL ET AL. in order to provide a strong, yet lightweight joint.

As to claim 38 (and as best understood despite the 35 U.C.S. § 112, first and second paragraph, lack of written description and indefiniteness, respectively, discussed above), POTTER ET AL. disclose the structural element (BM) of claim 32 as discussed above.

POTTER ET AL. fail to explicitly disclose that the joining means comprises at least one intermittent weld applied along the second end of at least one of the elongated members.

STOL ET AL. discloses the use of intermittent welds (20 in Fig. 2) in joining hollow framework.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the beam member of POTTER ET AL. by making the joining means be at least one intermittent weld along the second end of at least one of the elongated members as taught by STOL ET AL. in order to provide a strong, yet lightweight joint.

Claims 27 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over POTTER ET AL. (U.S. Patent Application Publication No. 2002/0038533) in view of BUKER ET AL. (U.S. Patent No. 3,606,418).

As to claim 27 (and as best understood despite the 35 U.C.S. § 112, first and second paragraph, lack of written description and indefiniteness, respectively,

discussed above), POTTER ET AL. disclose the beam member of claim 22 as discussed above.

POTTER ET AL. fail to explicitly disclose at least three elongated members having opposing ends, the elongated members being arranged such that the opposing ends of the elongated members do not coincide at a common axial position of the hollow structure.

BUKER ET AL. disclose at least three elongated members (32, 34, 36 in Fig. 7) having opposing ends (32e and unnumbered, 34e and unnumbered, 36e and unnumbered), the elongated members (32, 34, 36) being arranged such that the opposing ends of the elongated members do not coincide at a common axial position of the hollow structure.

It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the beam member of POTTER ET AL. by having at least three elongated members arranged such that the opposing ends of the elongated members do not coincide at a common axial position of the hollow structure as taught by BUKER ET AL. in order to form a stronger end-to-end connection with less chance of separation at abutting ends due to the varying overlap.

As to claim 39 (and as best understood despite the 35 U.C.S. § 112, first and second paragraph, lack of written description and indefiniteness, respectively, discussed above), POTTER ET AL. disclose the structural element (BM) of claim 32 as discussed above.

POTTER ET AL. fail to explicitly disclose that the two elongated members includes at least four elongated members comprising: a first elongated member and a second elongated member joined end-to-end to form a first joint; and a third elongated member and a fourth elongated member joined end-to-end to form a second joint; wherein the first and second elongated members and the third and fourth elongated members are configured to form the hollow structure and the first end joint and the second end joint do not coincide.

BUKER ET AL. disclose at least three elongated members (32, 34, 36 in Fig. 7) having opposing ends (32e and unnumbered, 34e and unnumbered, 36e and unnumbered), the elongated members (32, 34, 36) being arranged such that the opposing ends of the elongated members do not coincide at a common axial position of the hollow structure.

Further, it is well settled that a duplication of parts does not constitute a patentable difference. See *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960), wherein claims at issue were directed to a water-tight masonry structure wherein a water seal of flexible material fills the joints which form between adjacent pours of concrete. The claimed water seal has a "web" which lies ** in the joint, and a plurality of "ribs" ** >projecting outwardly from each side of the web into one of the adjacent concrete slabs. <The prior art disclosed a flexible water stop for preventing passage of water between masses of concrete in the shape of a plus sign (+). Although the reference did not disclose a plurality of ribs, the court held that mere duplication of parts has no patentable significance unless a new and unexpected result is produced.

It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the beam member of POTTER ET AL. by having at least four elongated members including a first elongated member and a second elongated member joined end-to-end to form a first joint, and a third elongated member and a fourth elongated member joined end-to-end to form a second joint, wherein the first and second elongated members and the third and fourth elongated members are configured to form the hollow structure and the first end joint and the second end joint do not coincide as taught by BUKER ET AL. in order to form a stronger end-to-end connection with less chance of separation at abutting ends due to the varying overlap and because it is well-settled that a duplication of parts does not constitute a patentable difference.

Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over POTTER ET AL. (U.S. Patent Application Publication No. 2002/0038533) in view of LEGBAND (U.S. Patent No. 7,174,686).

As to claim 29 (and as best understood despite the 35 U.C.S. § 112, first and second paragraph, lack of written description and indefiniteness, respectively, discussed above), POTTER ET AL. disclose the beam member of claim 22 as discussed above.

POTTER ET AL. fail to explicitly disclose that at least one of the elongated members is fabricated from at least one of fiber cement or fiber-glass reinforced plastic.

LEGBAND discloses an elongated member (10) fabricated from at least one of fiber cement or fiber-glass reinforced plastic (see col. 3, lines 29-34).

It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the beam member of POTTER ET AL. by making at least one of the elongated members be fabricated from at least one of fiber cement or fiber-glass reinforced plastic taught by LEGBAND in order to form a strong yet lightweight elongated member.

Claims 30 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over POTTER ET AL. (U.S. Patent Application Publication No. 2002/0038533) in view of PAGAN (U.S. Patent No. 2,975,874).

As to claims 30 and 41 (and as best understood despite the 35 U.C.S. § 112, first and second paragraph, lack of written description and indefiniteness, respectively, discussed above), POTTER ET AL. disclose the beam member of claims 22 and 32, respectively, as discussed above.

POTTER ET AL. fail to explicitly disclose that the joining means is at least one of a fusion weld, a rivet, a screw, a bolt, or an adhesive.

PAGAN discloses a girder made up of two structural members interconnected by welding, riveting, bolting, or otherwise (col. 2, lines 1-3).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the beam member or structural element of POTTER ET AL. by making the joining means be at least one of a fusion weld, a rivet, a screw, a bolt, or an adhesive as taught by PAGAN in order to form a stronger joint which is less likely to separate.

Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Fig. 12 embodiment of POTTER ET AL. (U.S. Patent Application Publication No. 2002/0038533) in view of the Fig. 10 embodiment of POTTER ET AL. (U.S. Patent No. 2002/0038533).

As to claim 36 (and as best understood despite the 35 U.C.S. § 112, first and second paragraph, lack of written description and indefiniteness, respectively, discussed above), the Fig. 12 embodiment of POTTER ET AL. discloses the structural element (BM) of claim 32 as discussed above.

The Fig. 12 embodiment of POTTER ET AL. fails to explicitly disclose that the third section includes at least two indentations.

The Fig. 10 embodiment of POTTER ET AL. discloses that the third section includes at least two indentations.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the structural element of the Fig. 12 embodiment of POTTER ET AL. to include at least two indentations as taught by the Fig. 10 embodiment of POTTER ET AL. in order to provide the elongated members with greater core strengthening.

Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over POTTER ET AL. (U.S. Patent Application Publication No. 2002/0038533).

As to claim 37 (and as best understood despite the 35 U.C.S. § 112, first and second paragraph, lack of written description and indefiniteness, respectively,

discussed above), POTTER ET AL. disclose the structural element (BM) of claim 32 as discussed above.

POTTER ET AL. fail to explicitly disclose that the two elongated members have unequal lengths.

However, it is well settled that changes in size/proportion does not constitute a patentable difference. See *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), *cert. denied*, 469 U.S. 830, 225 USPQ 232 (1984), wherein the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the structural member of POTTER ET AL. by making the two elongated members have unequal lengths in order for a short elongated member between two longer elongated member to simply act as a joining member to prevent disconnection at abutted ends, while at the same time maintaining the lightness of the assembly and because “[g]enerally, it is not invention to change size or degree of thing or any feature or function of machine or manufacture; there is no invention where change does not involve different concept, purposes, or objects, but amounts to doing the same thing substantially the same way with better results.” See *Hobbs v. Wisconsin Power and Light Company et al.*, 115 USPQ 371 (CA 7 1957). See also, *The Ward Machinery Company v. Wm. C. Staley Machinery Corporation*, 192 USPQ 505 (DC Md

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1976) for the proposition that "[i]mprovement resulting from a change in size, proportion, or degree of element contained in the prior art, no matter how desirable or useful, does not constitute patentable invention."

Response to Arguments

Applicant's arguments with respect to claims 22-45 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gay Ann Spahn whose telephone number is (571)-272-7731. The examiner can normally be reached on Monday through Friday, 10:30 am to 7:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard E. Chilcot can be reached on (571)-272-6777. The fax phone number for the organization where this application or proceeding is assigned is (571)-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

GAS
Gay Ann Spahn, Patent Examiner
May 19, 2007

Robert Canfield
Primary Examiner



ATTACHMENT 1

